

Cherokee County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

6/22/2017

Using the most recent IMPLAN data available (2015) adjusted for 2017, 19 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Cherokee County economy.¹

These 19 sectors have a total direct output of approximately **\$401.1 million** and support **970.3 jobs** in Cherokee County. Running the model for all 19 sectors simultaneously produces the following results:

Agriculture, Food, and Food Processing Sector Contribution to Overall Cherokee County Economy						
Impact Type ²	Employment	% Employment	Total Value Added ³	Total Value Added % of Gross Regional Product ⁴	Output ⁵	Output % of Gross Regional Product
Direct Effect	970.3	7.87%	\$78,396,121	10.81%	\$401,055,911	55.31%
Indirect Effect	360.2	2.92%	\$25,257,030	3.48%	\$53,744,431	7.41%
Induced Effect	265.8	2.16%	\$14,580,878	2.01%	\$28,105,200	3.88%
Total Effect	1596.3	12.95%	\$118,234,028	16.31%	\$482,905,543	66.60%

As shown in the above table, agriculture, food, and food processing sectors support **1,596.3 jobs**, or **12.95%** of the entire workforce in the county. These sectors provide a total economic contribution of approximately **\$482.9 million**, roughly **66.60% of the economy**.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 19 agriculture, food, and food processing sectors is approximately **\$118.2 million**, or **16.31% of the GRP**. This indicates that personal income, business income, and taxes generated by these sectors account for **16.31% of the total economy**.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:

http://www.implan.com/index.php?option=com_content&view=article&id=660%3A660&catid=253%3AKB33&Itemid=70

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value added = labor income + indirect business taxes + other property type income.

⁴ GRP = final demand of households + governments expenditures + capital + exports - imports - institutional sales.

⁵ Output = intermediate inputs + value added.

In the top ten agriculture, food, and food processing sectors by employment, the beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming sector is the top employer with **354.4 employees**. This table also shows the amount of jobs that are created by the agriculture industry in Cherokee County.

Top Ten Agriculture, Food, and Food Processing Sectors by Employment		
Sector	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	354.4	\$37,963,041
Animal production, except cattle and poultry and eggs	153.3	\$18,111,590
Pesticide and other agricultural chemical manufacturing	116.1	\$162,003,678
Grain farming	96.6	\$31,890,238
All other crop farming	67.5	\$4,588,955
Wholesale trade	58.1	\$12,045,637
Real estate	55.9	\$3,964,818
Other animal food manufacturing	42.4	\$57,595,597
Limited-service restaurants	27.6	\$1,866,510
Oilseed farming	27.4	\$27,468,590

The pesticide and other agricultural chemical manufacturing sector directly contributes approximately **\$162.0 million** to the Cherokee County economy. The table below also shows the amount of revenue that is generated in other industries by having a strong agriculture industry.

Top Ten Agriculture, Food, and Food Processing Sectors by Output		
Sector	Total Employment	Total Output
Pesticide and other agricultural chemical manufacturing	116.1	\$162,003,678
Other animal food manufacturing	42.4	\$57,595,597
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	354.4	\$37,963,041
Dog and cat food manufacturing	27.3	\$36,661,137
Grain farming	96.6	\$31,890,238
Oilseed farming	27.4	\$27,468,590
Animal production, except cattle and poultry and eggs	153.3	\$18,111,590
Poultry and egg production	16.6	\$12,614,132
Wholesale trade	58.1	\$12,045,637
Food product machinery manufacturing	27.1	\$8,210,133

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture, food, and food processing sector and the output they contributed to the Cherokee County economy.

All Agriculture, Food, and Food Processing Sectors		
Sector	Total Employment	Total Output
Oilseed farming	27.4	\$27,468,589.78
Grain farming	96.6	\$31,890,237.81
Vegetable and melon farming	0.7	\$141,087.90
Fruit farming	0.1	\$12,010.50
Tree nut farming	1.7	\$390,218.68
All other crop farming	67.5	\$4,588,955.40
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	354.4	\$37,963,039.40
Poultry and egg production	16.6	\$12,614,130.97
Animal production, except cattle and poultry and eggs	153.3	\$18,111,589.43
Commercial logging	2.9	\$116,285.04
Dog and cat food manufacturing	27.3	\$36,661,136.63
Other animal food manufacturing	42.4	\$57,595,596.31
Animal, except poultry, slaughtering	0.4	\$277,937.53
Bread and bakery product, except frozen, manufacturing	9.7	\$1,135,078.07
Frozen cakes and other pastries manufacturing	0.5	\$71,069.01
Pesticide and other agricultural chemical manufacturing	116.1	\$162,003,677.37
Food product machinery manufacturing	27.1	\$8,210,132.60
Veterinary services	15.5	\$1,238,314.15
Landscape and horticultural services	10.2	\$566,818.59

All 105 counties in Kansas have an IMPLAN model and an agriculture, food, and food processing contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Cherokee County, the retail sector was omitted.